U.S. Department of Transportation
National Highway Traffic Safety Administration

TRAFFIC SAFETY FACTS
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DOT HS 811 845 | A Brief Statistical Summary | October 2013

Early Estimate of Motor Vehicle Traffic Fatalities for the First Half (Jan–Jun) of 2013

Summary

A statistical projection of traffic fatalities for the first half of 2013 shows that an estimated 15,470 people died in motor vehicle traffic crashes. This represents a decrease of about 4.2 percent as compared to the 16,150 fatalities that were projected to have occurred in the first half of 2012, as shown in Table 1. The percentage change in fatalities has been steadily decreasing since the significant 12.3-percent increase projected for the first quarter of 2012. Preliminary data reported by the Federal Highway Administration (FHWA) shows that vehicle miles traveled (VMT) in the first six months of 2013 decreased by about 1.4 billion miles, or about a 0.1-percent decrease. Also shown in Table 1 are the fatality rates per 100 million VMT, by quarter. The fatality rate for the first six months of 2013 decreased to 1.06 fatalities per 100 million VMT, down from 1.10 fatalities per 100 million VMT in the first half of 2012. The fatality rate for the second quarter of 2013 decreased to 1.08 fatalities per 100 million VMT, down from 1.12 fatalities in the second quarter of 2012. The actual counts for 2011, 2012 and 2013 continue to be updated and the ensuing percentage changes between the fatalities for any of these years are therefore subject to revision.

Table 1: Fatalities and Fatality Rate by Quarter, First Half, and the Percentage Change From the Corresponding Quarter or First Half in the Previous Year

Quarter	1st Quarter (Jan–Mar)	2nd Quarter (Apr–Jun)	3rd Quarter (Jul–Sep)	4th Quarter (Oct–Dec)	Total (Full Year)	1st Half (Jan–Jun)
Fatalities and Percentage Change in Fatalities for the Corresponding Quarter From the Prior Year						
2005	9,239	11,005	11,897	11,369	43,510	20,244
2006	9,558 [+3.5%]	10,942 [-0.6%]	11,395 [-4.2%]	10,813 [-4.9%]	42,708 [-1.8%]	20,500 [+1.3%]
2007	9,354 [-2.1%]	10,611 [-3.0%]	11,056 [-3.0%]	10,238 [-5.3%]	41,259 [-3.4%]	19,965 [-2.6%]
2008	8,459 [-9.6%]	9,435 [-11.1%]	9,947 [-10.0%]	9,582 [-6.4%]	37,423 [-9.3%]	17,894 [-10.4%]
2009	7,552 [-10.7%]	8,975 [-4.9%]	9,104 [-8.5%]	8,252 [-13.9%]	33,883 [-9.5%]	16,527 [-7.6%]
2010	6,755 [-10.6%]	8,522 [-5.0%]	9,226 [+1.3%]	8,496 [+3.0%]	32,999 [-2.6%]	15,277 [-7.6%]
2011	6,708 [-0.7%]	8,216 [-3.6%]	8,960 [-2.9%]	8,483 [-0.2%]	32,367 [-1.9%]	*14,924 [-2.3%]*
2012†*	*7,530 [+12.3%]*	*8,620 [+4.9%]*	*9,180 [+2.5%]*	*8,450 [-0.4%]*	*33,780 [+4.4%]*	*16,150 [+8.2%]*
2013†	*7,170 [-4.8%]*	*8,300 [-3.7%]*	–	–	–	*15,470 [-4.2%]*
Fatality Rate per 100 Million Vehicle Miles Traveled (VMT)						
2005	1.32	1.42	1.54	1.54	1.46	1.37
2006	1.35	1.41	1.47	1.44	1.42	1.38
2007	1.31	1.35	1.41	1.37	1.36	1.33
2008	1.22	1.25	1.33	1.32	1.26	1.23
2009	1.09	1.16	1.17	1.12	1.15	1.13
2010	0.98	1.09	1.18	1.14	1.11	1.04
2011	0.98	1.08	1.18	1.16	1.10	*1.04*
2012†*	*1.08*	*1.12*	*1.21*	*1.16*	*1.14*	*1.10*
2013†	*1.04*	*1.08*	–	–	–	*1.06*

†2012 and 2013 are statistical projections and rates based on these projections.
*A marginal part of the increase in 2012 or the decrease in 2013 is attributable to 2012 being a leap year.
Source: Fatalities: 2005–2009 FARS Final File, 2010 FARS Annual Report File VMT: FHWA Traffic Volume Trends, August 2012

Figure 1: Percentage Change in Fatalities in Every Quarter as Compared to the Fatalities in the Same Quarter During the Previous Year

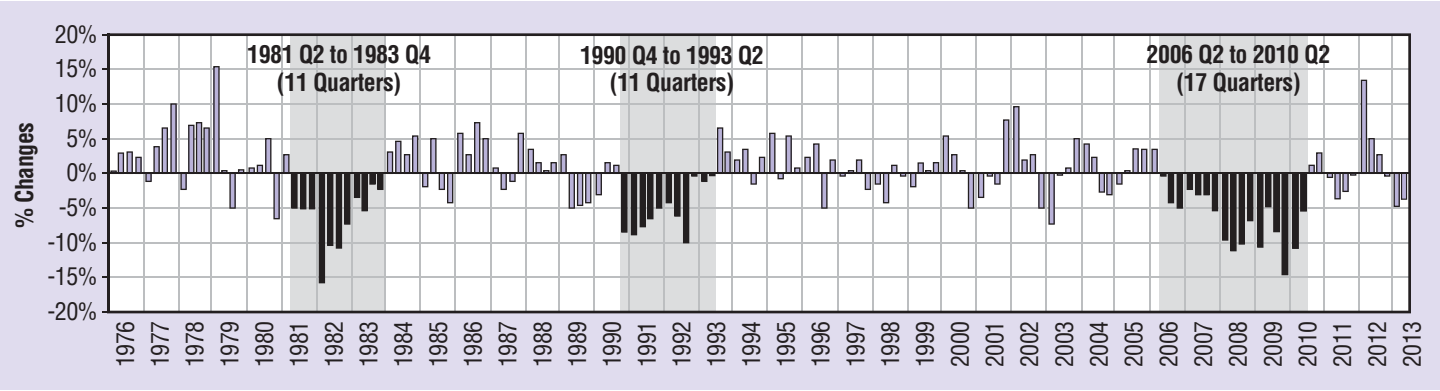

Figure 1 shows the historical trend of the percentage change every quarter from the same quarter in the previous year, going back to 1976. NHTSA has fatality data going back to 1975, and the shading in the chart depicts the years during which there were significant number of consecutive quarters with declines as compared to the corresponding quarters of the previous years. The declines during the early 1980s and 1990s lasted 11 consecutive quarters, while the most recent decline occurred over 17 consecutive quarters ending in the second quarter of 2010.

Discussion

The National Highway Traffic Safety Administration is continuing to gather data on crash fatalities for 2012 and 2013 using information from police accident reports and other sources. While it is too soon to speculate on the contributing factors or potential implications of any changes in deaths on our roadways, it should be noted that the historic downward trend in traffic fatalities in the past several years means any comparison will be to an unprecedented low baseline figure. This is a pattern that has continued through the reported totals for 2011 that show deaths at a 60-year low. In fact, fatalities declined by about 26 percent from 2005 to 2011.

In 2012, since recording a significant increase of 12.3 percent during the first quarter, the magnitude of the increases steadily declined during each subsequent quarter. Fatalities are estimated to have increased by about 4.9 percent in the second quarter, by about 2.5 percent in the third quarter, declining by about 0.4 percent in the fourth quarter of 2012. In 2013, fatalities are estimated to have declined by 4.8 percent and 3.7 percent in the first and second quarter, respectively. The corresponding estimated fatality rates per 100 million VMT during the first, second, third and fourth quarters of 2012 were 1.08, 1.12, 1.21 and 1.16, respectively. The fatality rate for the first quarter of 2013 was estimated to be 1.04 fatalities per 100 Million VMT and 1.08 fatalities per 100 Million VMT for the second quarter of 2013.

Data

The data used in this analysis comes from several sources: NHTSA's Fatality Analysis Reporting System (FARS), FastFARS (FF), and Monthly Fatality Counts (MFC); and from FHWA's VMT estimates. FARS is a census of fatal traffic crashes in the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway and must result in the death of at least one person (occupant of a vehicle or a nonoccupant) within 30 days of the crash. FARS final files from January 2003 to December 2010 and FARS Annual Report file in 2011 are used. The FF program is designed as an Early Fatality Notification System to capture fatality counts from States more rapidly and in real-time. It aims to provide near-real-time notification of fatality counts from all jurisdictions reporting to FARS. The MFC data provides monthly fatality counts by State through sources that are independent from the FastFARS or FARS systems. MFCs from January 2003 up to July 2013 are used. MFCs are reported mid-month for all prior months of the year.

In order to estimate the traffic fatality counts for each month of 2012, time series cross-section regression was applied to analyze the data with both cross-sectional values (by NHTSA region) and time series (by month), to model the relationship among FARS, MFC and FF, the details of which are available in a companion Research Note. The methodology used to generate the estimates for 2012 is the same as the one used by NHTSA to project the decline in the fatalities for the whole of 2011 (*Early Estimates of Motor Vehicle Traffic Fatalities in 2011,* Report No. DOT HS 811 604) as well as projections of fatalities for the first nine months of 2012 (*Early Estimates of Motor Vehicle Traffic Fatalities in the First Nine Months (January–September) of 2012,* Report No. DOT HS 811 706, available at www-nrd.nhtsa.dot.gov/Pubs/811706.pdf).

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